



Input extension

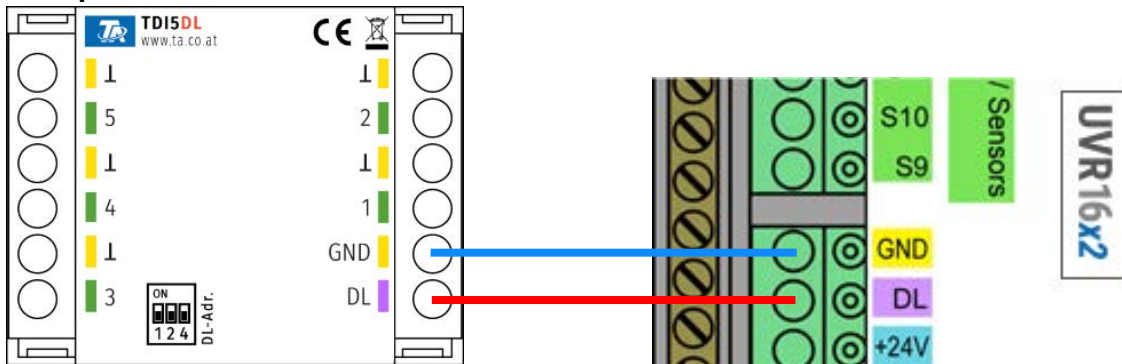


The **TDI5-DL** (Temperature and **D**igital **I**nterface) translates up to five signals for the data link (DL bus), which can be either a digital signal (On/Off) or the measurement from a PT1000 sensor. **Digital signals must be potential-free. Please note:** Due to the inertia of the DL bus, this module is **not** suitable for time-critical applications (e.g. digital inputs as pushbuttons).

If the TDI5-DL is used with CORA-DL, inputs 1-3 can measure voltage and inputs 3-5 can measure current.

Electrical connection

Example: connection to a UVR16x2 controller



The principles of DL bus cabling are described extensively in the installation instructions for the freely programmable controllers. The polarity of the data link is interchangeable.

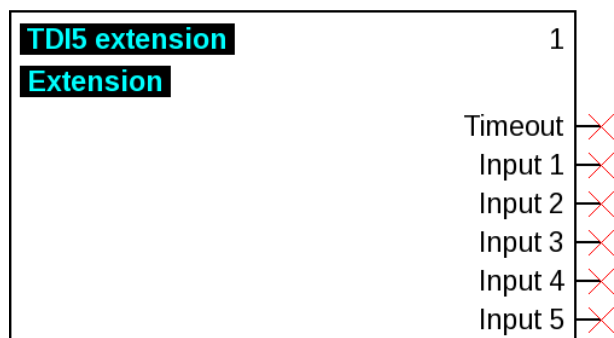
Programming in TAPPS2

The TDI5-DL can be used via DL bus or CORA-DL. See the accompanying "Additional instruction for DL devices using CORA-DL" for more information.

The electrical connection is the same with both applications. Only the DL bus or CORA-DL can be used; not both together.

If the TDI5-DL is used via the conventional DL bus, only PT1000 sensors and potential free digital signals can be read.

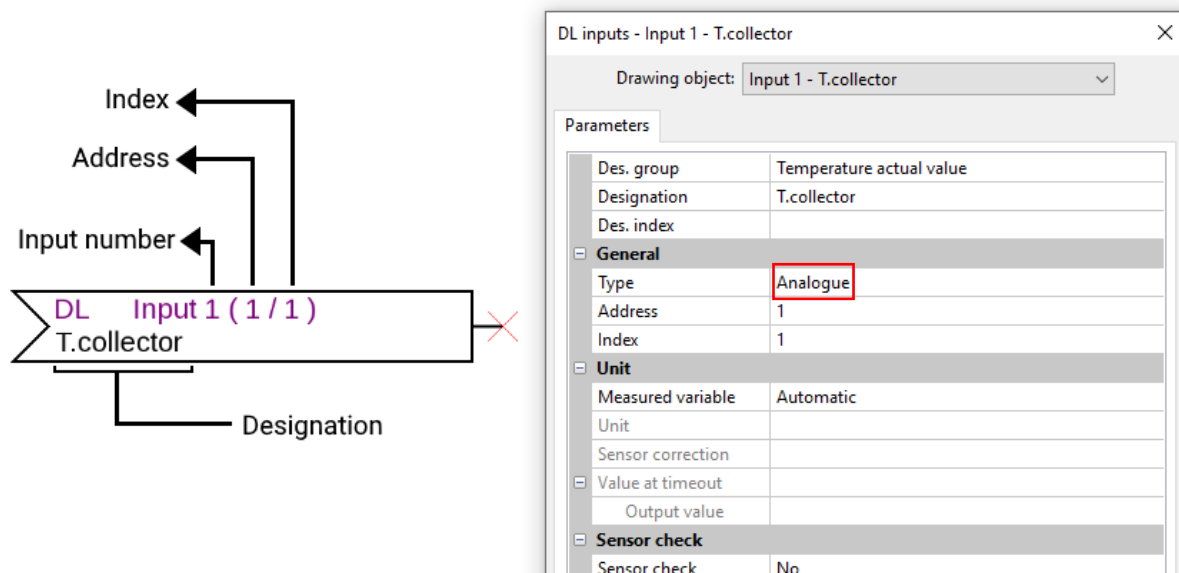
CORA-DL



The CORA device "TDI5 extension" is used (minimum TAPPS2 version: **1.20**). The CORA ID must be entered (it can be found on a label on the enclosure). Each input can be assigned its own designation, measured variable, process variable, sensor correction and scaling. They are used in the same way as for inputs on x2 controllers; see their instructions for more information.

DL bus

In the following example, the default DL bus address of 1 is used.



The most important settings can be found under **General**. If a digital (On/Off) input is to be read out (index 1-5), the type must be set to **Digital**; otherwise, it must be **Analogue**. In addition, specify the DL bus address set on the TDI5-DL (default 1), as well as the index of the required input.

If the **Measured variable** is set to **Automatic**, no further settings are required under **Unit**.

The table found under **Index** (page 2) provides information about which index belongs to which input status.

Index

The TDI5-DL transmits values to the data link via the following indices. These correspond to the input statuses.

Index	Unit	Source/value	
1-5	On/Off	External digital signal	Inputs 1-5
6-10	Temperature °C	PT1000 sensor	Inputs 1-5
11-12	Not used		
13	Dimensionless	Dimensionless number from 0-31, which issues all input statuses in binary. See chapter "Binary decoder".	
14	Dimensionless	Serial number of the module	
15	Dimensionless	Software version (without decimal points)	

DL address

The DI5-DL has a default address of 1. This address can be changed using the DIP switches in the device. The final address is made up of the default 1 and the sum of the DIP switches that are set to "ON".

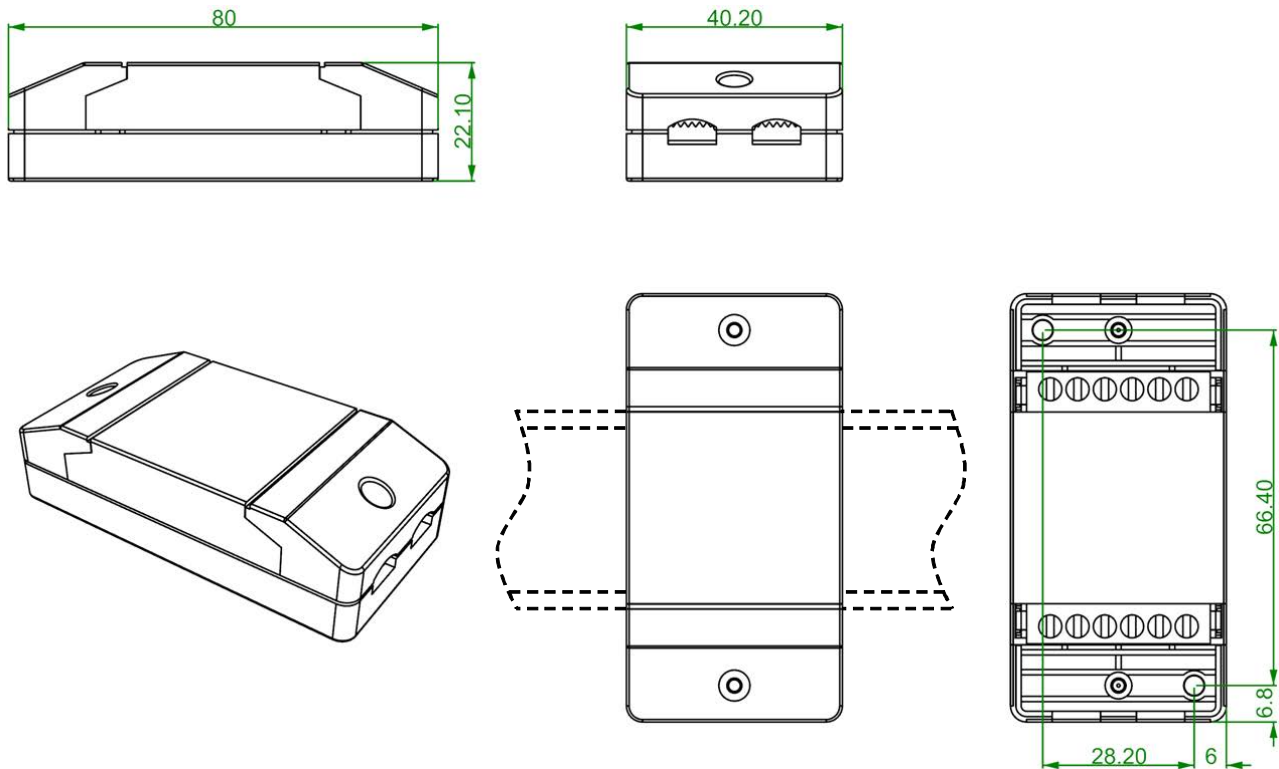
Example

Required address	6
Default setting	1
DIP switches 1 and 4	+ 5
Sum = address	= 6
DIP switches 1 and 4 must be set to ON .	



Position of DIP switches as per the example.

Dimensions in mm



Top-hat rail installation
(support rail TS35 to
standard EN 50022)

Technical data

DL bus load	30%
IP rating	IP 20
Clamping area	Max. 1.5 mm ²
Temperature measurement (E1-E5)	PT1000 sensor Accuracy: Typically 0.4 K, max. ± 1 K within a range of 0-100 °C
Voltage measurement (E1-E3) (only CORA-DL)	0-10 V Accuracy: Typically 1%, max. 3%
Current measurement (E3-E5) (only CORA-DL)	0-20 mA Accuracy: Typically 1%, max. 3%
Max. ambient temperature	45 °C

Subject to technical modifications as well as typographical and printing errors. This manual is only valid for devices with the corresponding firmware version. Our products are subject to constant technical advancement and further development. We therefore reserve the right to make changes without prior notice

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